

*Library*

58

DOCKING

RURAL DISTRICT COUNCIL.

ANNUAL REPORT

of the

MEDICAL OFFICER of HEALTH.

for the year 1957

to which is appended the

REPORT of the

SENIOR PUBLIC HEALTH INSPECTOR

and of the

WATERWORKS SUPERINTENDENT.



## CONTENTS.

The Staff of the Public Health Department.....	p. 1
The Public Health Committee .....	p. 2
Preface .....	p. 3.
<u>Part I - The Report of the Medical Officer of Health</u>	
<u>- General</u> .....	p. 4 - 12
Staff .....	p. 4
Area and Population .....	p. 4
Meteorological Factors .....	p. 4
Vital Statistics .....	p. 4 - 7
Communicable Diseases .....	p. 8 - 10
Dental Caries and Fluoridation .....	p. 11
Environmental Hygiene .....	p. 11 - 12
<u>Appendix A - Climatic Data</u> .....	p. 13
<u>Appendix B - Causes of Death</u> .....	p. 14
<u>Appendix C - Water Tests - Bacteriological</u> .....	p. 15
<u>Appendix D - Water Tests - Chemical</u> .....	p. 16
<u>Appendix E - Fluoridation of Water Supplies</u> .....	p. 17 - 19
<u>Part II - The Report of the Senior Public Health Inspector</u> .....	p. 20 - 27
Inspections and Visits .....	p. 21
Notices .....	p. 21
Housing ... .....	p. 21 - 23
Food ... .....	p. 23 - 25
Public Cleansing .....	p. 25 - 26
<u>Part III - The Report of the Waterworks Superintendent</u> .....	p. 28 - 32

DOCKING RURAL DISTRICT COUNCIL.

Public Health Department

-----  
STAFF

Medical Officer of Health

Dr. W.H. CRICHTON, C.I.E., M.B., Ch.B., D.P.H.

Senior Public Health Inspector

W.B. JENKINS, C.R.S.I., C.S.I.B.

Additional Public Health Inspectors.

G.W. SANGER, C.R.S.I., C.S.I.B.

P.F. PROUD, C.R.S.I., C.S.I.B.

Clerk (part time)

Miss N.H. PULL

DOCKING RURAL DISTRICT COUNCIL.

Public Health Committee.

1957.  
-----

Chairman - F/Lt. A.E. Richmond

Vice-Chairman - Col. G.H. Winter.

Members -

Mrs. R.B. Allen  
Mr. B.T. Borthwick  
Mrs. C. Clifton Brown  
Mr. F. Ebling  
Mrs. K.W. Craske  
Mr. W.G. Cunningham  
Mrs. D.S.L. Garland  
Sir E.S. Lycett Green, Bt., J.P.  
Mr. P. Grimmer  
Mr. F.J. Gourlay  
Mr. E.H. Jennings  
Mr. E.E. Lack, J.P.  
Dr. R. Telford Martin  
Mr. H.H. Middleton  
Mr. A.W. Ringer  
Mr. R.T. Rush  
Mr. H.F. Sands  
Mr. H.E. Schulman  
Mr. R. Sheldrake  
Mrs. V.E. Torrey  
Mr. J.E.A. Lambert, J.P. (ex-officio)  
Mr. E.J.F. Isherwood (ex-officio)

## - PREFACE -

The Chairman and Members,  
Docking Rural District Council.

Mr. Chairman, Ladies and Gentlemen,

Annual Public Health Report 1957.

It gives me great pleasure to submit to you for your information, a copy of my Report to the Minister of Health on the public health of the District, to which is appended the report of the Chief Public Health Inspector (Mr. Jenkins) on the environmental factors affecting the health of the people and that of the Superintendent of Waterworks (Mr. Drysdale).

Compared with the preceding year, a lower birth rate, a higher death rate and an increased infant mortality, do not, I regret give cause for much satisfaction although it must be recognised that the differences are small (p. 4,5, 6 & 7).

The picture is not made any brighter by the fact that the year provided a record incidence of measles and a sharp and unexpected rise in the incidence of whooping cough (p. 8).

There is fair progress to report on the poliomyelitis vaccination programme though this must inevitably be tinged by a sense of frustration because of the inadequacy of supplies of vaccine. The year closed on a note of optimism on future supplies to meet an expanded programme to include all children from 6 months to 15 years, expectant mothers and Family Doctors and their families (p. 9).

Another notable event was the inauguration of the B.C.G. vaccination scheme for all school leavers which incidentally revealed a relatively high proportion of children sensitive to Tuberculin (p. 10), in the District.

Yet another interesting, though annoying, event was the outbreak of an epidemic of plantar warts among school children in Hunstanton (p. 10).

In the sphere of environmental hygiene, slum clearance progress (p. 11 & 12) and the inadequacy of cesspool emptying service (p.12) are important features. The standard of sanitation in rural school lavatories still gives cause for concern.

Perhaps the most frustrating event is the present 'impasse' on the accepted policy of the fluoridation of the water supply, which it is hoped will soon be resolved. The effect which this important and well tried public health measure would have on the health of the people through prevention of dental decay would be incalculable. Other factors are concerned as well and I hope to see a greater realisation by the people, of the close relationship of diet and dental hygiene to dental and general health. This is a matter of health education of which there is a very great need.

I wish to take this opportunity to thank you for your interest and consideration which have contributed so much to make my task a pleasant one.

Your obedient Servant,

W.H. CRICHTON.

PART I- General -(1) Staff -

There were no changes in the Staff of the Public Health Department during the year under review. The excellent and enthusiastic work of Mr. Jenkins, the Chief Public Health Inspector and of Mr. Sanger and Mr. Brooks, Additional Inspectors, is gratefully acknowledged and much appreciated.

(2) Area & Population of the District -

The District covers 87,386 and 30 Parishes. It is essentially rural in character.

The population of the District has been estimated as 17,540 for the mid-year 1957. This is 140 more than the estimate for the preceding year and 90 more than the census figure in 1951. It is however interesting to note that the natural increase in the population during the year (i.e. the difference between live births and deaths) was only 90. Contrary to the trend elsewhere, it would appear that there is an influx into the District which more than balances the emigration to urban areas and abroad.

(3) Meteorological Factors -

Once again by courtesy of the R.A.F. Authorities at West Raynham who have furnished the data, some indication can be given of the meteorological circumstances which affected the Area, although the figures shown (Appendix A) cannot apply accurately to each District.

It will be noted that the mean maximum, minimum and daily temperatures were all appreciably higher than those obtaining in the preceding year. This was particularly noticeable during the first three months of the year, usually the most severe part of the winter season. Indeed it was generally felt that there had been "no winter to speak of".

The total rainfall for the year (26.85 inches) does not differ markedly from that of the preceding year (26.27 inches) but its distribution was very different. Thus the rainfall in February and March was higher than that in the preceding year and especially in September when 4.38 inches were recorded as against 1.58 inches.

The Relative Humidity has not varied widely. It shows the same decrease in April, May and June as it did last year and maintained the high average of well over 80% throughout the rest of the year.

- Vital Statistics -

(1) Births - The number of births and still births by sex and legitimacy are shown below, with the figures for the preceding year in brackets:-

<u>Live Births</u>	<u>Males</u>	<u>Females</u>	<u>Totals</u>
Legitimate	152 (161)	151 (165)	303 (326)
Illegitimate	16 ( 7 )	8 ( 13 )	24 ( 20 )
	168 (168)	159 (178)	327 (346)

<u>Still Births</u>	<u>Males</u>	<u>Females</u>	<u>Totals</u>
Legitimate	5 ( 1)	1 ( 2)	6 ( 3)
Illegitimate	- ( -)	- ( 1)	- ( 1)
	5 ( 1)	1 ( 3)	6 ( 4)

(a) The Crude birth rate represented by these figures is 18.6 per 1,000 population. This is slightly lower than the rate for the preceding year which was 19.87 per 1,000 and is in fact the first time that the steady rise since 1951 has been checked. Thus:-

<u>1951</u>	<u>1952</u>	<u>1953</u>	<u>1954</u>	<u>1955</u>	<u>1956</u>	<u>1957</u>
15.87	16.67	17.14	18.05	19.01	19.87	18.6

The presence of U.S.A.F. families in the Area undoubtedly accounts for the continued high rate.

(b) The corrected birth rate, after application of the comparability factor (1.10) is 20.46 per thousand. The rate for the preceding year was 22.05.

(c) The Stillbirth rate was 18.3 per 1,000 live births which is considerably higher than the rate for the preceding year - 14.2 per 1,000.

(d) The Illegitimate birth rate has risen to 73.3 per 1,000 live births. It was 57 in 1956 and 59 in 1955.

## (2) Deaths :-

(a) The number of deaths at all ages recorded by the Registrar General during the year was as follows:-

<u>Males</u>	<u>Females</u>	<u>Total</u>
105 (104)	132 (116)	237 (220)

(b) Although the actual numbers vary only slightly from those of the preceding year, as may be noted by the figures in the brackets, there is an appreciable rise in the crude death rate which is 18.6 per 1,000 population as compared with 12.6 per 1,000 in 1956, and 11.35 in 1955.

(c) Application of the comparability factor (0.82) makes the adjusted death rate 15.2 per 1,000 as against 10.36 in the preceding year.

(d) The causes of death as recorded in the Registrar General's statement are shown in Appendix B (p. 14 ) with an added column showing the figures for the preceding year. It will be noted that there was an increase in the number of deaths from vascular lesions of the nervous system (33 as against 28) and in the deaths from pneumonia which were double those recorded in the preceding year (16 as compared with 8). It is gratifying to note that for the second year in succession no death from pulmonary tuberculosis has been recorded, and indeed, only one occurred in 1955. In these days of effective antibiotic treatment, the occurrence of one death from the effect of syphilis (shown under 'other infectious diseases') is a rarity.

The deaths recorded from cancer of the lung are as high as they were last year and all the cases occurred among males. Although it is not known if the cases were all smokers or otherwise, the probability is that most of them were. Cancer, including leukaemia, accounted for 16.3% of the total deaths in the year under review. The proportion in the preceding year was 19%.

The absences of any deaths from pregnancy, childbirth or abortion is another satisfactory feature of the list.

(e) Deaths by age groups - The following table of deaths by age groups is compiled from the particulars of deaths submitted monthly by the Local Registrar's office. The totals do not tally exactly with the figures shown in the Registrar General's statement (Appendix B) as these refer specifically to deaths among local residents.

Age Groups	- Deaths by age groups -		
	Males	Females	Totals
Under 1 yr.	1 ( 1)	5 ( 2)	6 ( 3)
- 5	- ( 2)	- ( 1)	- ( 3)
- 10	- ( -)	- ( -)	- ( -)
- 20	- ( -)	- ( -)	- ( -)
- 30	1 ( 1)	1 ( -)	2 ( 1)
- 40	- ( 2)	1 ( 2)	1 ( 4)
- 50	5 ( 2)	4 ( 2)	9 ( 4)
- 60	13 (11)	9 ( 5)	22 (16)
- 70	25 (32)	14(24)	39 (56)
- 80	45 (28)	37(35)	82 (63)
- 90	20 (21)	37 (38)	57 (59)
91 +	3 ( 4)	11 ( 7)	14 (11)
 Totals	113 (104)	119 (116)	232 (220)

The figures in brackets relate to the preceding year. It will be noted that the number of infant deaths has doubled and that the proportion of deaths among the advanced age groups (60 upwards) has risen appreciably, particularly in the 80 age group. It is gratifying that no deaths were recorded among the pre-school school age and adolescent groups. This is in welcome contrast to the devastating toll which used to be levied in recent memory by diphtheria, scarlet fever, whooping cough and tuberculosis. There are many factors to account for this improvement but modern preventive and curative medicine, as well as better environmental hygiene all played major parts.

(f) Infant Mortality -

The number of infant deaths was 6 as shown above. All were legitimate.

These represent an infant mortality rate of 18.3 per thousand live births which is appreciably higher than the rate for the preceding year - 11.5 per 1,000. The rates obtaining during the past five years were as follows:-

1952	1953	1954	1955	1956
23.8	38.8	34.5	29.5	11.5

Thus although the current infant mortality rate is appreciably higher, it is still well within the trend shown during the past five years. It must also be remembered that, with so small a number of deaths, the rate per 1,000 is liable to show wide variation.

As a general index of social progress, the infant mortality rate is significant in that it is compounded of obstetric and immediate post natal factors as distinct from environmental factors which make themselves apparent at a later period (after 4 weeks). In this case of the six infant deaths recorded, three died under 4 weeks of age, from congenital causes (hydrocephalus and prematurity with atelectases) and one from basal pneumonia. The other three deaths are ascribed to accidental asphyxia (1 month) pneumonia (at 5 months) and gastro-enteritis (4 months).

Thus, the neonatal mortality rate i.e. the number of deaths of infants under 4 weeks per 1,000 live births, is 18.3 per thousand live births and the perinatal death rate, which takes into account prenatal and congenital factors as well as the others, and includes still births, is 36 per thousand births.

.. Communicable Diseases ..

(1) The year under review has been marked by an exceptionally high incidence of communicable disease. Notified cases amounted to 688 as compared with 41 in the preceding year. This increase was largely accounted for by the expected biennial periodicity of measles and by a totally unexpected rise in the incidence of whooping cough. The cases notified were as follows:-

Measles	501	(5)
Whooping Cough	156	(6)
Scarlet Fever	2	(1)
Pneumonia	14	(2)
Poliomyelitis	4	(-)
Tuberculosis - Pulmonary	8	(5)
Tuberculosis - Non-pulmonary	2	(5)
Puerperal Fyrexia	1	(1)
Jaundice	-	(4)
Dysentery	-	(5)
Total .....	688	(34)

(2) Measles - The figure of 501 cases is a record. The nearest approach to it was 403 cases in 1952. The cases occurred as usual mainly in the pre-school and school age groups, particularly the latter, with a consequent considerable loss of school attendance. The epidemic began in February and increased steadily every month until June when 155 cases were recorded. It then waned gradually until September when only one case was notified, but rose again to 16 in November and 11 in December. Although the symptoms were reported on the whole to be mild, one could wish that children could be immunised against measles, not only because of the occasional sequelae but also because of the dislocation it causes in school programmes (e.g. polio? immunisations).

(3) Whooping Cough - At first sight the record figure of 156 cases of whooping cough as against 3, 3 and 6 in the three preceding years suggests some disappointment in the efficacy of whooping cough vaccination which was introduced in 1953. But an examination of the age groups affected, reveals that no less than 104 cases out of 156 (66.6%) were 5 years of age or over and therefore unlikely to have had the benefit of vaccination. Even so the remainder (52) constitutes a sharp rise in incidence but more in conformity with the figures obtaining in pre-vaccination years. There is one consolation, namely that the symptoms have been mild and markedly so in those who are known to have been vaccinated. This is the opinion of every Family Doctor with whom I have discussed the matter. Vaccination therefore is still regarded as well worth while. One could wish however that it could have a better influence on the attack rate because of the sequelae which sometimes arise and also because of the dislocation it causes in school life.

The epidemic began in January (40 cases) attained its maximum in February (118) and waned gradually to vanishing point in October.

Burnham Market and Burnham Thorpe were the parishes principally affected.

Vaccinations against whooping cough which are usually combined with diphtheria immunisation amounted to 629 in 1957 as compared with 346 in the preceding year. The following table shows the vaccinations carried out by age groups:-

Age Groups.	Under 1 yr.	1 - 4 yrs.	5 - 14 yrs.	Total
Primary (Dip. & Whooping Co.).	311	148	170	629
Booster (Dip. only).	-	-	631	631
Totals	311	148	801	1260
	(248)	( 95)	(782)	(1125)

Figures in brackets refer to the preceding year.

(4) Pneumonia - 4 cases occurred in January and 6 cases in October, the latter being associated with the 'flu epidemic which began in September.

(5) Poliomyelitis - Four cases were notified, all paralytic in type. The first occurred in July in a young married man of 28 years of age in Dersingham. His attack was reported to be slight. The second occurred in August in a boy of 6 years of age who was on a caravan holiday with his parents at Holme and who came from Coventry. His case was a severe one both upper and lower limbs being affected. The third case, also from Holme, occurred in a local boy aged 4½ years who did not have any contact with the preceding case. His was a very mild case, the paralytic symptoms being confined to a small group of muscles in one leg. The fourth case was a young man, a native of Stanhoe, who happened to be visiting relatives outside the District when he was attacked. This case was not a serious one. None of the cases were connected with each other.

Poliomyelitis Vaccination - Within the limits imposed by the restricted supply of vaccine, the polio' vaccination programme was carried out vigorously, mainly in Schools. By the end of the year over 1,500 vaccinations had been carried out in the District and the planning for the expanded programme to include children from 6 months to 15 years, expectant mothers, doctors and ambulance personnel was well advanced.

Confidence in the vaccine grew among the people, and applications increased as the programme progressed. The doubts initially entertained on the safety of the Salk vaccine were dispelled in most cases as experience was gained. By the end of the year there was every hope that the objective of having all children vaccinated before the next polio' season would be realised, provided that adequate supplies of vaccine would be maintained and provided also that intercurrent epidemics and adverse weather conditions did not interfere with the programme.

(6) Tuberculosis - Eight new cases of pulmonary tuberculosis were notified, of which one, a male of 60 years of age was a military case. Four of the cases were males and four females. The majority (5) were over 30 years of age; the remainder a boy of 9 and another of 10 who is a son of one of the female cases.

There were also two new cases of non-pulmonary tuberculosis, both cervical T.B. adenitis, one a girl of 14, the other a young man of 23.

Three cases moved into the District and nineteen moved out of the District. Thus the position at the end of the year on the T.B. Register was as follows:-

Pulmonary Cases		Non-Pulmonary Cases.	
Male.	Female.	Male.	Females.
35	20	4	6
55	Totals	10	

B.C.G. Vaccination - The programme of B.C.G. vaccination for school leavers was initiated during the autumn term when a total of 84 boys and girls of school leaving age were Mantoux tested at Dersingham and Hunstanton Sec. Mod. Schools. There were 16 positive reactors out of 30 at Dersingham (53.3%) and 21 positive reactors out of 54 at Hunstanton (40.3%). All negative reactors were re-vaccinated with B.C.G. vaccine and all positive reactors were X-rayed and found to be normal.

(7) Other Communicable Diseases -

(a) Asian Influenza - This epidemic manifested itself in September and reached its peak in October, declining during the following month. As influenza is not "notifiable" no exact figures of the incidence are available but it is known that the school population was badly affected and absences rose to 50% and 60% in several schools. 6 pneumonias due to influenza were notified in October and one death in a young child of 5 months was recorded from Hunstanton. Symptoms were mild at the beginning of the epidemic but became more severe in the second month and recovery was slower.

Special (Virus A) vaccine was given to all Doctors, Nurses, Home Helps and Ambulance Staff.

(b) Mumps - An epidemic of mumps was reported from Schools during June and July. None of the 46 cases reported was serious but their occurrence hampered the polio' vaccination programme.

(c) Anthrax (bovine) - A case of bovine anthrax in a steer was reported from Shernbourne in March. The usual precautions were taken regarding disposal of the carcase and the warning of all contacts.

(d) Salmonella typhimurium - One case was notified in an American woman during her confinement. No further cases occurred. The usual precautions against spread were taken in conjunction with the U.S.A.F. authorities.

(e) Diphtheria - For the seventh year in succession there has been no case of diphtheria, the last case being one in 1950. This happy result is undoubtedly due to immunisation. The number of vaccinations carried out during the year is shown in a Table on page 9 as it is most frequently administered in combination with whooping cough vaccine. Continued freedom from diphtheria can only be ensured by combined immunisation of the greatest number of susceptibles.

(f) Verruca - A considerable number of cases of plantar warts were reported among pupils attending Hunstanton Secondary Modern School. Restrictions were placed on the use of changing rooms and showers by those affected. Regular inspections were instituted and cases were referred to their Family Doctors for treatment. Effective control of spread is hampered by the fact that extensive use is made of a local public swimming bath.

(8) Dental Caries and Fluoridation -

There is no accurate measure of the incidence of dental caries in this District but it is notorious that it is distressingly high, particularly among school children. The causes are fourfold, namely:-

- (a) a lack of understanding of the relationship of sound diet to dental health;
- (b) a lack of understanding of the relationship of effective and timely brushing and cleansing to dental health;
- (c) a serious shortage of dentists and a tendency to regard caries in deciduous teeth as unimportant;

and (d) last, but not least, a grave deficiency in the fluorine content in the water supply.

(a) & (b) are matters which are beyond the scope and powers of the Council and certainly need the greatest emphasis in health education. (c) is a matter of national policy; but (d) the serious lack of fluorine and its relation to dental health is well within the jurisdiction of the Council.

A special NOTE on the subject (reproduced in this Report as Appendix E) was presented to the Council in November and the advisability of introducing the fluoridation of water supplies was accepted in principle. on page 17

Further progress has not been possible owing to a High Court action in another part of the country, the decision of which affects the future of fluoridation at least in England. It is however to be hoped that unprejudiced opinion will prevail and that this much needed and abundantly proved measure will be brought in as soon as possible.

- Environmental Hygiene -

(1) In Part II of this Report, the Senior Public Health Inspector (Mr. Jenkins) has dealt in detail with the various environmental factors affecting the public health. It remains for me as Medical Officer of Health, to direct the attention of the Council to certain salient features and to comment on these.

(2) The Statement on "Inspections & Visits" (p. 21) shows the very varied and very heavy responsibilities which are borne by the Health Inspectorate Staff. These duties are made all the more onerous because of the scattered population of the District. Until such time as slaughterhouses are centralised and control is thereby facilitated, much of the time and energy of the Health Inspectors, must be devoted to this important task. Slum clearance has also imposed additional responsibilities and, without a Housing Manager, the duty of interviewing prospective tenants for Council houses also devolves on the Inspectorate. I have already expressed my gratitude and satisfaction for their devotion to their duty and I feel sure the Council are equally conscious and appreciative of their work.

(3) Slum Clearance and Housing - The inspections carried out in nine Parishes during the year have disclosed a further 105 houses in Category 3 (i.e. unfit for human habitation). The figure at the end of the preceding year was 184 approximately, to which the present figure must be added, bringing the total to 289 houses unfit for human habitation. Many of these have been dealt with under the Housing Acts as shown in the Statement but families still have to be rehoused and as only 35 could be rehoused, it is not surprising that there was still a distressingly high figure of 254 applicants for houses at the end of the year.

Actually despite the restrictive influence of the financial situation, the Council completed more houses in the current year than in the preceding year, 30 as compared with 24, but clearly much more will have to be done as soon as there is sufficient relaxation in the Government financial policy. Note should be taken of the fact, as recorded under "Area and Population" para 2 (p. 4 ) that there appears to be an influx of population into the District and it is difficult to know how many will permanently settle in the District.

(4) Drainage and sewage disposal - Under his para. 8 (p. 25 ) the Senior Public Health Inspector has given details showing the very great strain imposed on the Department to maintain the cesspool emptying service which has been promised to all householders throughout the District. The number of such services has increased and will naturally go on increasing as more houses are built. As the services provided appear to be unable to cope adequately with the demands placed on them now the outlook for the future cannot be regarded as satisfactory. In my view the overflowing of a cesspit is a matter of equal urgency to the outbreak of a fire, and its clearing therefore a matter which deserves immediate attention if the health of the people is to be adequately protected. Nothing less than this can be adequate and the Council would be well advised to consider the imposition of additional charges to meet an improved service.

Meanwhile consideration should be given to research on the design and capacity of the cesspools which are built (or to be built) and to the need of imposing minimal standards in relation to the size and needs of each individual household. Alternatively, disposal plants should be considered.

(5) Heacham Sewage Scheme - It is gratifying that this important and valuable scheme has made excellent progress throughout the year which has made it possible to look forward to a much needed service being provided for this relatively congested area.

(6) Water Supplies - I am grateful to Mr. Drysdale (Superintendent of Waterworks) for a copy of his report which is attached (p. 28 to 32 ).

It will be noted that both average and total quantities of water have risen.

The quality of the drinking water supply has invariably been excellent both chemically and bacteriologically except, of course, in its lack of fluorine (p. 11. 17,18 & 19 ), which is a serious defect.

It is gratifying that mains water supplies are available to all Parishes in the District and that new connections are in demand.

APPENDIX A.

## - CLIMATIC DATA -

	Mean daily Maximum Temp.	Mean daily Minimum Temp.	Mean daily Temp.	Total rainfall (inches)	Mean Relative Humidity
January	44.9 (40 )	37.6 (34 )	41.3 (37 )	1.87 (3.33)	88.8 (90.7)
February	45.3 (33.9)	35.3 (25.4)	40.3 (29.7)	3.12 (1.80)	89.8 (88.8)
March	53.6 (48.8)	41 (34.7)	47.3 (41.7)	2.41 (0.96)	86.3 (81.7)
April	53 (49.0)	39.9 (35.4)	46.5 (42.2)	0.54 (1.31)	80 (77.7)
May	56.6 (63.1)	42.1 (44.1)	49.3 (53.6)	1.29 (1.15)	76.5 (70.7)
June	67.5 (60.1)	48.8 (47.8)	58.1 (53.9)	1.74 (3.27)	73.3 (80.2)
July	67.9 (66.1)	54.4 (53.8)	61.1 (59.9)	3.33 (3.61)	84.3 (82.5)
August	65.6 (62.9)	52.4 (48.9)	59 (55.9)	2.39 (3.70)	83 (83.0)
September	59.8 (64.2)	48.3 (50.4)	54.1 (57.3)	4.38 (1.58)	83.8 (86.5)
October	56.9 (54.3)	46.5 (43.1)	51.7 (48.7)	1.47 (2.54)	87 (87 )
November	46.6 (46.3)	40 (37.6)	43.3 (41.9)	1.71 (1.55)	87.3 (92 )
December	42.8 (45.2)	35.4 (38.8)	39.1 (42. )	2.60 (1.47)	89.8 (91.2)

Figures in brackets denote preceding years' figures.

APPENDIX B.

## CAUSES OF DEATH

	Males	Females	Totals	
			1957	1956
1. Tuberculosis - respiratory	-	-	-	-
2. Tuberculosis - other than respiratory	1	-	1	1
3. Other infective Diseases.	1	-	1	1
4. Cancer of the stomach	3	2	5	4
5. " " " lungs and bronchi	6	-	6	6
6. " " " breast	-	3	3	7
7. " " " uterus	-	2	2	2
8. " other forms	14	6	20	23
9. Leukaemia	2	-	2	-
10. Diabetes	1	2	3	3
11. Vascular lesions, nervous system	16	17	33	28
12. Coronary disease of the heart	11	8	19	23
13. Hypertension with heart disease	-	2	2	2
14. Other diseases of the heart	16	17	33	28
21. Other diseases of the circulation	5	12	17	11
22. Influenza	1	2	3	2
23. Pneumonia	8	8	16	8
24. Bronchitis	1	1	2	4
25. Other diseases - respiratory system	1	2	3	2
26. Ulcers, stomach or duodenum	1	2	3	2
27. Gastritis and diarrhoea	-	1	1	1
28. Nephritis and Nephrosis	1	1	2	3
29. Enlargement of the prostate	3	-	3	1
30. Pregnancy and childbirth	-	-	-	-
31. Congenital malformations	1	-	1	1
32. Other diseases	11	22	33	33
33. Motor accidents	1	-	1	1
34. All other accidents	-	4	4	1
35. Suicide	-	-	-	1
Totals	105 (104)	132 (116)	237	220

APPENDIX C.

Report on Bacteriological examination of samples of water taken during year.

<u>Parish</u>	<u>Public Supply</u>		<u>Private Sources (Wells)</u>	
	<u>Satis-</u> <u>factory.</u>	<u>Unsatis-</u> <u>factory.</u>	<u>Satis-</u> <u>factory.</u>	<u>Unsatis-</u> <u>factory.</u>
Thornham	-	-	1	-
Snettisham	2	-	1	-
West Rudham	-	-	-	1
Pockthorpe	-	-	1	1
Holme	-	-	-	3
Heacham (Hunstanton Supply)	9	-	-	-
Docking	5	-	-	-
North Creake	-	-	-	1
South Creake	-	-	2	2
Burnham Market	-	-	1	1
Gt. Bircham	9	-	-	-
Fring	12	-	-	-
Houghton (Freebridge supply)	2	-	-	-
Syderstone	1	--	-	-
Total	40	-	6	9

APPENDIX D.

## - Analyses of Water -

Sources of Samples and Dates.	3.10.57. Mains Water Fring P.S.	17.10.57. Birchan P.S. tap on rising main.	29.10.57. * For Fluorine Only. Fring. Gt. Birchan Dady.	Fenside Heachan.
Appearance	Clear	Clear		
Nature of deposit	Nil	Nil		
Colour	Nil	Nil		
Reaction	Faintly alkaline	Faintly alkaline		
Odour	Nil	Nil		
pH	7.4	7.4		
Taste	Satisfactory	Satisfactory		
Ammoniacal Nitrogen	0.01	0.01		
Albuminoid "	0.01	0.01		
Nitrate Nitrogen	12.5	11.5		
Nitrite "	Nil	Nil		
Chlorine as Chlorides	30	22		
Total hardness	280	265		
Fluorine	0.02	Nil	Nil	Nil
Opinion	Fit	Fit		

\* These samples were tested for fluorine content only.

APPENDIX E.

Note on the

Fluoridation of Water Supplies.

As requested by the Council, I have prepared a brief note on the question of fluoridation of water supplies.

Dental caries (= decay) among school children is widespread. It has in fact become a major public health problem particularly since the war ended owing principally to three factors namely - bad food habits, increased availability and consumption of sweets and an increasing shortage of dentists.

The healthy structure of the teeth is dependent on mineral elements contained in certain foods i.e. calcium, phosphorus and Vitamin D which are to be found in vegetables, meat, fish, eggs, milk, nuts and fruit and regular cleansing habits to remove accumulations of food, especially carbohydrates (sweets, cakes, bread and other starchy foods) which tend to accumulate in teeth crevices where they ferment and attack the protective enamel of the teeth.

It is notorious that the diet of most of our children contains an excess of carbohydrates and not enough of the protective foods and furthermore, that thorough and regular cleansing habits are seldom acquired or maintained.

Dental health education is a difficult and long term process and the effective control of dental caries is probably beyond the resources of the dental services available today, but we have in fluoride a measure of prevention, the efficacy of which is now beyond dispute.

Fluoride is a natural component of many foods and is also present in drinking water in varying and variable degrees. Its association with the prevention of dental caries is interesting in that it was incidental to another enquiry. At the beginning of the century a young dentist (McKay) in Colorado U.S.A. observed and studied the causes of certain mottling of the teeth.

This lead to further studies which finally established by the 1930's that fluoride (in excess) was the cause of the mottling and that where this occurred decay of the teeth was progressively diminished (Dean 1946). Thus, at a level of 1 part of fluoride per million parts of water (F 1 ppm), the rate of dental caries among children who had consumed water from birth was found to be 60% lower than among comparable groups who had water containing practically no fluoride (Forest).

As a result of these findings, it was decided to ascertain whether similar results could be obtained by adding fluoride to waters in which it was lacking. Experiments were carried out in 1945 at Grand Rapids, Newburgh, and Brantford in U.S.A. over a period of 10 years. The final reports, published recently, show that there is marked reduction of dental caries among children who have drunk fluoridated water all their lives.

In this Country the survey carried out by Weaver in North and South Shields in 1943 is of particular interest. The fluoride content of these adjacent and similar communities was ascertained. In North Shields it was 0.25 ppm; in South Shields it was 1.4 ppm. One thousand children of comparable age groups and circumstances were examined in each area and it was found that the incidence of dental caries, in both temporary and permanent teeth, was 56% less among the children of South Shields than it was among those of North Shields.

Similar reports with similar findings can be multiplied "ad infinitum" and in 1952, following the report of a special mission sent by the Medical Research Council to America to study fluoridation, demonstration projects have been started in Andover, Anglesey, Kilmarnock and Watford.

My own experience of the fluoride content in this District is so far strictly limited but samples are being taken to ascertain this in different parts and from different sources at frequent intervals. This is necessary because of its variability. However, as you are aware, I had a sample tested at Burnham Thorpe last year (September) where I had noticed an unusually high (some 90%) incidence of dental caries among school children. The Analyst's report was reported to you in my Monthly Report at the time and more recently in my Annual Report. The Analyst's opinion was as follows:-

"Fluorine content ..... very low compared with figures usually obtained for East Anglian public supplies which are in the neighbourhood of 0.1 ppm ..... The very low figures now recorded may be associated with the observation by the M.O.H. that there appears to be a high incidence of dental caries among school children ..... and suggests that fluoridation of this water supply would be in the public interest".

Reference to the County Council in October 1956, following these findings, elicited the reply that in 1954 the Ministry of Health offered to make the City of Norwich (and its County environments) an area of fluoride demonstration but that it was rejected by the Norwich Corporation. The County Medical Officer is now awaiting the result of routine dental inspections and treatment in the area.

Objections against fluoridation of water supplies have been raised on ethical grounds that it is an infringement of human rights and also on the grounds that fluoride in the drinking water can be harmful. It is difficult to reconcile acceptance of the addition of Chlorine or Ammonia or water softeners on ethical grounds with the objection to the addition of fluoride. As to harmful effects it has been established beyond serious dispute by one eminent authority after another, after the most exhaustive studies that it causes no harmful effects. Amongst these may be cited the report by Alcock on the critical surveys conducted in the cities of Newburgh and Kingston in the U.S.A., over a period of 10 years which concluded that "Fluoridation of water supplies carries no risk to the general health and well being of the Community".

During the current year the Government of New Zealand, which is renowned for its thorough Public Health Services, published a "Report of a Commission of Inquiry into the fluoridation of Public Water supplies" which among many conclusions stated that "no harmful effects on health will follow fluoridation of water supplies". Furthermore they were "satisfied that widespread use should be made of the fluoridation process" and recommend the formation of a national body to encourage, advise and assist local authorities who wish to adopt the process.

Finally, the World Health Organisation, this year set up an Expert Committee on fluoridation who have declared that "the effectiveness, safety and practicability of fluoridation as a means of preventing dental caries is now established" - this opinion being based on a review of fluoridation projects in use in no less than 17 countries involving well over 30,000,000 people.

There remains the question of the cost of fluoridation. Quoting from a paper by John Longwell, Senior Principal Scientific Officer, Department of Government Chemist .. "The costs in this country are based on the actual expenditure at the four fluoridation centres; and of necessity development costs which should not recur if fluoridation becomes a general measure throughout the Country and do not include costs of labour ..... since in no instance were additional employees necessary because of fluoridation.

The capital cost of the equipment has been taken on the basis of a loan for 10 years repayable annually at 6% interest.

Place	Population	Water consumed galls/per head/ per day.	Total cost pence/per head/year.
Anglesey (Half island)	25,000	40	4.7
Andover	16,000	49	7.4
Watford	70,500	43	3.4
Kilmarnock	47,500	85	6.2

The total cost of the National Dental Health Service in 1955 was £33,286,816 and this does not include the cost of the School Dental Services. On a population of 50 millions, this works out at 13/6d. per head (per annum) plus the cost of the School Dental Service.

If the findings of the investigations now in progress in the District confirm our fears that the fluoride content of the water is consistently deficient, there seems to be a clear case, on the evidence submitted, for a recommendation to be made that a scheme for the fluoridation of the water supply should be instituted.

There is however one important point to bear in mind and that is that fluoridation, however effective as a preventive measure against dental caries, should never be regarded as a substitute for the education of the public in good food habits and dental care and hygiene but rather as a most useful complementary measure.

- P A R T      II -

THE REPORT OF

MR. W.B. JENKINS, SENIOR PUBLIC HEALTH INSPECTOR,

DOCKING RURAL DISTRICT COUNCIL.

## 1. Inspections and Visits.

The number of inspections and visits made in connection with the various branches of public health work during the year are as follows:-

Inspections coming within the purview of the Public Health Act, 1936, for the abatement of nuisances in connection with water supplies, drainage work, building byelaws, etc .....	495
Improvement Grants under the Housing Act 1949.....	107
Housing, for repairs, etc .....	147
Interviewing applicants for Council houses prior to reporting to Tenants' Selection Sub-Committee .....	35
Factories Act, 1937 .....	16
Shops' Act .....	78
Milk & Dairies Regulations ....	15
Food Premises for food inspection, food byelaws and Food & Drugs Act requirements, including ice-cream premises .....	172
Slaughterhouses and butchers' shops for meat inspection.....	1943
Administration of Public Cleansing Schemes.....	918
Control of Moveable Dwellings .....	20
Pests Act, 1949 .....	9
Supervision of Public Conveniences .....	42
Slum Clearance .....	1062
Miscellaneous .....	38

## 2. Notices.

(a) PRELIMINARY. The following preliminary notices were served requiring the provisions of the various Acts and Regulations to be complied with:-

Housing Acts, 1936 - 1957 .....	37
Public Health Acts, 1936 .....	40
Milk & Dairies Regulations, 1949 .....	1
Factories Act, 1937.....	5
Shops Act, 1950 .....	7
Food Hygiene Regulations, 1955 .....	52
Meat Regulations 1924 .....	4

(b) STATUTORY. The Council authorised the serving of Statutory Notices on two owners to provide a satisfactory water supply to 8 houses. The owners were interviewed and agreed to provide a mains supply to the houses, thus making the serving of the Notices unnecessary.

## 3. Housing.

(a) Slum Clearance. The work of slum clearance, as required by the Housing Repairs & Rents Act 1954, was continued throughout the year.

The method of placing houses into one or other of the three categories adopted by the Council, according to their degree of fitness was proceeded with as in the previous year, the categories used for the purpose being:-

Category 1. Houses reasonably satisfactory in most respects, and above the general standard for the district.

Category 2. Houses suffering from defects, or lack of amenities, which make them not reasonably suitable for occupation, but which defects or lack of amenities, if remedied, would make the houses reasonably habitable for some time to come.

Category 3. Houses suffering from serious defects regarding structure and amenities, which make them unfit for habitation and incapable of being made fit at a reasonable cost.

Detailed inspections were made of all houses in Category 3, and many of those in Category 2, and reports of these inspections were available for the Sub-Committee, who were appointed to visit the houses and to make recommendations as to what action should be taken in connection with them.

During the year, the under-mentioned parishes were dealt with for slum clearance purposes, and the table shows the classification of the houses, and the action taken by the Council:-

Parish	Cat.1.	Cat.2.	Cat.3	Action taken by Council	
				Houses in Clearance Areas.	Individual Unfit houses
Burnham Market	72	200	36	30	2
Sedgeford	50	93	21	14	4
Burnham Thorpe	6	52	3	3	-
Burnham Overy	22	147	2	2	1
Burnham Norton	6	33	-	-	-
North Creake	14	104	10	14	4
South Creake	18	125	12	9	4
East Rudham	14	131	10	4	2
West Rudham	6	61	11	6	3
Totals	208	946	105	82	20

The above figures are rather striking, in the fact that of the 1,259 houses that were classified, only 208, or approximately one-sixth of the total, were considered to be satisfactory in most respects.

Of the 105 shown to be unfit and incapable of being made fit at a reasonable cost, 102 were dealt with as clearance areas or as individually unfit houses. Of the 946 houses in Category 2, many of these are repairable and could be made to serve a useful purpose for some years. However, a proportion of them are very little better than those placed in Category 3, and unless these are brought to a better standard, they will form the potential condemnable houses of the future.

The slum clearance figures for the parishes of Docking, Dersingham, and Heacham were included in last year's report.

The following parishes have still to be dealt with for slum clearance purposes:-

Snettisham, Ingoldisthorpe, Ringstead, Holme, Thornham, Brancaster, Brancaster Staithes, Bircham, Syderstone, Stanhoe, and the remaining smaller places, such as Bagthorpe, Fring, etc.

(b) Number of Families re-housed. The number of families rehoused by the Council under the slum clearance programme was 35, thirty-three from Clearance Areas, and two from individual unfit houses.

At the end of the year there were 254 applicants for Council houses.

(c) New Houses. During the year, 30 Council houses were built and 35 were erected by private enterprise.

#### Housing Act 1949. Improvement Grants.

There were 44 applications, formal and informal, received during the year for Improvement Grants.

Grants were made in respect of 21 of the applications; 14 applications were refused; 2 were withdrawn; 3 were deferred by the applicants; one grant was refused by the applicant as it was considered to be insufficient, and 3 applications were outstanding at the end of the year.

As the result of grants being given, 29 houses were improved, 20 of these being tenanted and 9 owner-occupied.

The total amount of grants approved was £3,855., an average of approximately £133. per house.

Last year the average grant per house improved was £232.

Rent Act 1957, Disrepair Certificates. 14 applications were received for Disrepair Certificates, and 10 such certificates were issued.

#### 4. Food Premises.

The numbers of the various food premises in the district do not appear to have altered from last year, and they are as follows:-

Grocers & General Stores .....	156
Butchers .....	18
Fish Friers .....	10
Restaurants and Cafes .....	16
Licensed Premises .....	63
Licensed Slaughterhouses .....	13
School Canteens .....	14
Poultry Pluckers .....	2
Cheese Manufacturers .....	1

The number of food premises registered under Section 16 of the Food & Drugs Act 1955, and the number of dairies registered under the Milk & Dairies Regulations, are as follows:-

Ice-cream Premises .....	71
Meat Preserving Premises .....	18
Dairies .....	11

## 5. Food Hygiene Regulations, 1955.

The object of these Regulations, part of which came into force on 1st January, 1956, and the remainder in July of that year, is to give power to Local Authorities to require certain standards to be maintained at food premises. These premises, at which food is manufactured, stored, handled or sold, must comply with the Regulations with respect to certain structural requirements, provision of hot and cold water supplies, sinks and wash-hand basins etc. Persons handling food are also required to take precautions against contamination of food, and utensils and equipment used in the preparation and sale of food.

During the year, the inspection of food premises under the Regulations was continued, the initial inspections dealing primarily with the condition of the premises themselves.

When all food premises have been made to satisfy the structural requirements of the Regulations, work under the Regulations will not then automatically cease. Periodic visits will still have to be made to see that the standard of cleanliness, and requirements regarding food handling are being observed. It is, after all, the human element which is most important in food handling. However good premises and equipment may be, careless use of these, and indifference to the basic principles of hygiene, could have serious consequences.

Owing to pressure of other work, particularly slum clearance, progress under the Regulations was limited. The following is a summary of the work that was carried out during the year:-

No. of premises inspected .....	188
No. of premises not complying with Regulations.	134
No. of premises complying with Regulations.....	54
No. of notices sent requesting compliance.....	49
No. of notices complied with .....	18

## 6. Ice-cream Sampling.

11 samples were taken for bacteriological examination.  
7 of these were in Grade 1, four in Grade 2.

## 7. Meat Inspection.

This service has been carried out regularly at the 13 licensed slaughterhouses in the District. With so many slaughterhouses to visit, their wide distribution over the District, and the number of days per week on which killing takes place, meat inspection takes up a considerable amount of the Inspectors' time.

However, despite the time and work involved, it is a service that must be maintained at a high level if the public are to be adequately protected. Efforts were made to do this, and it is estimated that, with the exception of sheep, 95% of the carcases at slaughterhouses were inspected.

<u>Carcases Inspected and Condemned</u>				
	<u>Cattle</u>	<u>Calves</u>	<u>Sheep</u>	<u>Pigs</u>
Numbers Inspected	1146	51	762	2622
<u>All diseases except Tuberculosis.</u>				
Whole carcases condemned .....	1	1	-	2
Carcases of which some part or organ was condemned .....	100	2	8	53
Percentage of Number inspected affected with disease other than tuberculosis .....	8.81	5.88	1.04	2.09
<u>Tuberculosis Only.</u>				
Whole carcases condemned... .....	1	-	-	-
Carcases of which some part or organ was condemned,.....	40	-	-	42
Percentage of number inspected affected with tuberculosis .....	3.57	-	-	1.6

## 8. Public Cleansing.

### (a) Cesspool and Lavatory Pail Emptying.

The scheme for giving four free emptyings of cesspools a year to householders throughout the District was continued.

The emptying of lavatory pails was carried out regularly in the following parishes:- Heacham Snettisham, Ringstead, Docking, South Creake, Burnham Market and Burnham Overy. In all other parishes, the disposal of nightsoil was carried out by householders themselves.

The direct labour force remained at 4 men and 3 vehicles, until November, when 2 additional men were employed to do nightsoil work at Burnham Overy and South Creake, and to assist with refuse collection. Again, a considerable amount of overtime had to be worked to cope with the ever increasing demands made on the service.

The total number of cesspool emptyings during the year was as follows:-

Cesspools serving private dwellings, caravan sites etc	=	2,120
" " Council houses .....	=	463
Sewage Disposal Works .....	=	16

The estimated cost of cesspool and pail emptying, as allowed for in the 1957/58 estimates, was £6.195, less an income of £565., making a net charge of £5,630.

(b) Refuse Collection. The house refuse collection service was continued during the first six months of the year with the 3 lorries and 9 men, as for last year, collections being given approximately every 17 days in all parishes, with the exception of Heacham, Ringstead, Burnham Market and Burnham Overy, where weekly collections were given.

Frequent complaints were being received from those parishes where, it was claimed, an inadequate service was being given, and the Council, after reviewing the position, agreed to the acquisition of an additional refuse lorry and staff and decided that, with the exception of Heacham, all parishes should have a collection approximately every 10 days. Heacham, it was considered, was in need of a weekly collection.

The additional lorry was put into operation in June, and by the end of the year, the absence of complaints was indicative that the better service was giving more satisfaction to the public.

The estimated cost of refuse collection, as allowed for in the 1957/58 estimates, was £7,859.

#### Sewerage.

Work on the Heacham Sewerage Scheme continued through the year, and apart from this, no other work was undertaken regarding the provision of new public sewers. The usual maintenance was given to sewer ditches at Snettisham and Rudham. The condition of those at Snettisham again gave cause for concern, owing to the increase in the foul matter that is being discharged into them. Prices were submitted to the Council for the piping of two of the open sections of ditches, but this work was not proceeded with.

#### Water Supplies.

(a) Public Supply. Regular sampling of the public supply was carried out by the staffs of the Public Health and Water Departments, and during the year 62 samples were taken, 11 of these being for fluorine content only.

All the samples that were taken for a check on possible pollution of the supply were reported on as being satisfactory.

(b) Private Wells. 24 samples of water were taken from private wells. Of these, 10 were reported on as being unsatisfactory, 2 were suspicious and 12 were satisfactory.

Where unsatisfactory supplies were found, all necessary action was taken to obtain wholesome water, by sterilisation of the well, or by having the public supply made available. Through such action, the mains supply was made available to the occupants of 12 premises.

#### Dirty and Verminous Premises.

During the year, three premises were dealt with for flea infestation.

Action was also taken in respect of one private house which was found to be in an extremely filthy condition; and one Council house was cleared of a large quantity of rubbish, after it had been vacated.

#### Rodent Control.

During the year, 356 complaints were received regarding premises affected with rat or mouse infestation. This was 78 more complaints than received last year.

In addition to the work of dealing with these complaints, regular treatment of the 15 refuse tips in the district was carried out.

Infectious Diseases.

19 inquiries were made in connection with infectious diseases, and reports on these were furnished to the Medical Officer of Health.

8 disinfections were carried out after cases of infectious diseases, and 13 visits were made to collect specimens of faeces, etc., for laboratory examination.

Your obedient Servant,

W.B. JENKINS,

SENIOR PUBLIC HEALTH INSPECTOR.

PART III

THE REPORT OF

MR. J.R. DRYSDALE, WATERWORKS SUPERINTENDENT.

DOCKING RURAL DISTRICT COUNCIL.

---

WATER CONSUMPTION.

<u>Source</u>	<u>Total Quantity Pumped and Purchased.</u>	<u>Average Daily Quantity</u>
Great Bircham Boreholes	69,110,000 gallons	189,342 gallons
Fring Boreholes	31,899,000 "	87,395 "
Heacham Bulk Supply	21,527,000 "	58,978 "
Houghton Bulk Supply	633,000 "	1,734 "
	123,169,000 gallons	337,449 gallons

PUMPING COSTS.Electricity

<u>Station.</u>	<u>Units Consumed.</u>	<u>Total Cost.</u>	<u>Cost per Thousand Gallons.</u>
Great Bircham	128,877	£572.12. 9.	1.98 penny
Fring	53,186	£229. 6. 7.	1.72 "
<u>BULK SUPPLY PURCHASES.</u>			
Heacham		£717. 11. 4.	
Houghton		£ 51. 19. 6.	
Total.....		£769. 10.10.	

STORAGE.

Reservoir, The Mount, Docking.	400,000 gallons
Water Tower, The Mount, Docking.	225,000 "
Water Tower, Docking Village.	30,000 "
Reservoir, Inmere.	300,000 "
Water Tower, Heacham.	50,000 "
Total.....	1,005,000 gallons

PUMPING STATIONS.Fring.

The quantity of water pumped from this station increased by 1,272,000 gallons, but the quantity of water bye-passed was 1,376,429 gallons, which when taken overall shows a decrease in consumption of some 45,000 gallons over the 1956 returns.

The pumping and auxiliary plant at this Station has operated very satisfactorily with only the usual minor failures which we have rectified without inconvenience to consumers, other than those, the plant and station has only required routine maintenance.

The recorded borehole levels at this station are as follows:-

<u>October 1956.</u>		<u>October 1957.</u>	
Rest Level	16'	Rest Level	17' 6"
Pumping Level	20'	Pumping Level	23'

Great Bircham.

The quantity of water pumped from this Station increased by 2,996,000 gallons over the 1956 returns and shows an increased consumption of some 1,620,000 gallons.

The pumping plant has operated satisfactorily with only the normal maintenance duties requiring to be carried out.

Trouble is still being experienced with the Candy Chlorination plant which has been tested and varied by Candys' Representative. A reconditioned Booster Pump was then recommended and fitted by my department but without the required results, this pump has since been replaced by the Pump Manufacturers with another pump which has certainly improved the performance of the Chlorinator but, since Candys' Representative was last here we have been having varied results.

The recorded borehole levels at this Station are as follows:-

October 1956

Rest level	20'
Pumping level	33'

October 1957

Rest level	23' 6"
Pumping level	39'

I have heard nothing further from the Consultants on any remedial action being taken to lesson the extraordinary surge pressures which are experienced on the rising main and which could have serious effects on supply if a break did occur, especially in view of the possibility of affording a supply to Sculthorpe Aerodrome.

General.

Strict supervision has been maintained especially on the running of Great Bircham Pumping Station to ensure the greatest saving possible on electricity charges.

Samples.

In collaboration with the Public Health Department the following samples from the public supply have been submitted for analysis to ensure wholesome supply:-

Bacteriological	49
Chemical	3
<hr/>	
Total	52
<hr/>	

DISTRIBUTION.

Mains water supply is available to all Parishes in the District and new supplies continue to be laid to the older properties as well as all new houses, which to some extent accounts for an increased consumption, another factor which could reflect on the consumption is that a number of farmers have recently had large diameter services laid for carrot washing.

Minimum flow tests are carried out periodically throughout the District to minimise waste or misuse and ensure pumping is kept to a minimum for electricity charges.

Fittings are regularly inspected on the Mains throughout the District to ensure maintenance is kept at as low a cost as possible.

NEW SUPPLIES.

New supplies connected during the year are as follows:-

	Domestic	Metered	Special charges	Total
District Scheme	49	20	15	84
Dersingham and Heacham	62	5	31	98
	111	25	46	182

MAINS EXTENSIONS.

Mains extensions and improvements have been carried out as follows:-

Heacham, Church Farm Road.	100 yards completed
Dersingham, Lifewood Estate	170 yards (incomplete)
Heacham, Neville Road -	
Wilton Road.	cross connection completed.

MAINS AND SERVICES - REPAIRS AND MAINTENANCE.

Various mains alterations etc. were carried out for The Norfolk County Council on the A 149 Road, Ingoldisthorpe, due to road improvements.

Numerous mains and services diversions were carried out as necessary in Heacham, to enable the Sewerage Scheme to be carried forward as planned.

Mains fractures and damages to communication pipes were dealt with and repaired with a minimum of inconvenience to consumers.

RESERVOIRS AND TOWERS.

Normal maintenance has been carried out at the reservoirs and towers but further troubles have developed in the automatic control cable at The Mount, this we are investigating with a view to remedial action being taken when faults are located to enable the strict control of levels to be maintained.

Work on the interior decoration of the water tower has been carried out by our own Staff.

GARAGES AND WORKSHOPS.

Interior decoration of the garages and workshops has been carried out by our own Staff as well as some alterations and decorations to the meter repair shop.

VEHICLES.

All normal maintenance work on the 3 Water Department vehicles has been carried out very satisfactorily by our own Staff and no major repairs have been necessary.

OFFICES AND STORES

The external treatment of the offices and stores has been carried out by a contractor and this appears to have cured the dampness (this was a similar treatment to that agreed upon for the original block of houses) and has certainly enhanced their appearance.

METERS.

There are over 400 metered supplies in the District which we are responsible for, and for the year ended 31st. December 1957 some 146 meters were changed, tested, overhauled and put back into service, this work is also undertaken by our own Staff.

GENERAL.

Due to various circumstances the Public Health Committee decided to dispense with the services of Mr. Wilson, employed in the Water Department as Water Inspector. Mr. Wilson terminated employment with the Department on 24th July, 1957.

It was subsequently decided by the Committee to re-organise the Department, abolish the post of Water Inspector, and advertise a newly created post of Waste Inspector.

RE-GROUPING OF WATER UNDERTAKINGS.

In view of the Ministry's Circular 52/56 various meetings have been attended, technical data has been prepared for those meetings and also for a panel set up by the County Council to enable a report for consideration to be drawn up. This has now been produced for the various authorities consideration.

Serious consideration has also been given to the Bulk supply for Heacham when the Sewerage Scheme comes into operation, arrangements are in hand to meet representatives of New Hunstanton U.D.C., to fully discuss this matter with a view in mind of safeguarding the Heacham supply.

Your obedient Servant,

J.R. DRYSDALE,

WATERWORKS SUPERINTENDENT.